

CLAIMS

What is claimed is:

1. An optical transceiver module comprising:

a transceiver housing including two sides, a top, a bottom, and front and rear faces, at least the front face having right and left sides;

a transceiver substrate disposed within the transceiver housing so that the transceiver substrate is oriented substantially perpendicularly with respect to the top and bottom of the transceiver housing;

a receive optical assembly that defines a longitudinal axis, the receive optical assembly being positioned so that the longitudinal axis of the receive optical assembly is substantially perpendicular to the transceiver substrate and the receive optical subassembly being disposed proximate the left side of the front face of the transceiver housing; and

a transmit optical assembly that defines a longitudinal axis, the transmit optical assembly being positioned so that the longitudinal axis of the transmit optical assembly is substantially perpendicular to the transceiver substrate, and the transmit optical subassembly being disposed proximate the right side of the front face.

2. The optical transceiver module as recited in claim 1, wherein the axes respectively defined by the transmit optical sub-assembly and the receive optical sub-assembly are positioned above an imaginary horizontal plane that bisects the transceiver module.

3. The optical transceiver module as recited in claim 1, further comprising at least one electrical connection positioned proximate a lower edge of the transceiver substrate and arranged to be received in a corresponding of a host bus adaptor.

4. The optical transceiver module as recited in claim 1, wherein the host bus adaptor comprises one of: a PCI card; and a PCMCIA card.

5. The optical transceiver module as recited in claim 1, further comprising at least one electronic component positioned on one of a front or rear surface of the transceiver substrate.

6. The optical transceiver module as recited in claim 5, wherein the at least one electronic component includes at least one of: a laser driver; a signal amplifier; a status indicator component; a thermo-electric cooler; a current bias regulator; a capacitor; and, a resistor.

7. An optical transceiver module comprising:

a transceiver substrate, the transceiver substrate having a front surface and a rear surface and a top edge and bottom edge;

an electrical connector positioned proximate the bottom edge of the transceiver substrate;

a receive optical assembly positioned proximate the top edge of the transceiver substrate; and

a transmit optical sub-assembly positioned proximate the top edge of the transceiver substrate.

8. The optical transceiver module as recited in claim 7, further comprising a transceiver housing in which the transceiver substrate, receive optical assembly, and transmit optical assembly are positioned.

9. The optical transceiver module as recited in claim 8, wherein the transceiver housing defines at least one optical port slot located proximate the bottom edge of the transceiver substrate.

10. The optical transceiver module as recited in claim 7, wherein the optical transceiver module is configured to be positioned on a host bus adaptor.

11. The optical transceiver module as recited in claim 10, wherein the host bus adaptor comprises one of: a PCI; and, a PCMCIA card.

12. The optical transceiver module as recited in claim 7, wherein at least one of the following is positioned on at least one of the front surface and the rear surface of the transceiver substrate: a laser driver; a signal amplifier; a status indicator component; a thermo-electric cooler; a current bias regulator; a capacitor; and a resistor.

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13. A host bus adaptor comprising;
- a printed circuit board having at least one connector configured to electrically interface with a computer system; and
- an optical transceiver module positioned on the printed circuit board, the optical transceiver comprising:
- a transceiver substrate including electronic circuitry, the transceiver substrate having a front surface and a rear surface and top and bottom edges;
- an electrical connector positioned proximate the bottom edge of the transceiver substrate;
- a receive optical sub-assembly positioned proximate the top edge of the transceiver substrate; and
- a transmit optical sub-assembly positioned to the right of the receive optical sub-assembly and proximate the top edge of the transceiver substrate, and the transmit optical sub-assembly and receive optical sub-assembly being in electrical communication with the electronic circuitry of the transceiver substrate.

14. The host bus adaptor as recited in claim 13, wherein at least one of the following is positioned on at least one of the front surface and the rear surface of the transceiver substrate: a laser driver; a signal amplifier; a status indicator component; a thermoelectric cooler; a current bias regulator; a capacitor; and a resistor.

15. The host bus adaptor as recited in claim 13, further comprising a transceiver housing in which the transceiver substrate, receive optical sub-assembly, and transmit optical sub-assembly are positioned.

16. The host bus adaptor as recited in claim 15, wherein the transceiver housing defines at least one optical port slot located proximate the bottom edge of the transceiver substrate.

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